

CLAIM AMENDMENTS

1-18. (Canceled)

19. (New) An internal combustion engine comprising:

an exhaust gas line in which an NO_x reduction catalytic converter is arranged, and

a reducing agent-generating unit for generation of H₂-containing and NH₃-containing reducing gas which can be added upstream of the NO_x reduction catalytic converter in the exhaust gas line,

wherein the reducing agent-generating unit can be supplied with at least one of an HC-containing fuel, air, and exhaust gas, and

wherein the reducing agent-generating unit has an NO_x generation step and an H₂ generation step in serial arrangement.

20. (New) The internal combustion engine according to claim 19, wherein the NO_x generation step is arranged downstream from the H₂ generation step.

21. (New) The internal combustion engine according to claim 19, wherein the NO_x generation step is arranged upstream from the H₂ generation step.

22. (New) The internal combustion engine according to claim 19, further comprising an NH_3 generation step arranged downstream from the NO_x generation step.

23. (New) The internal combustion engine according to claim 20, further comprising an NH_3 generation step arranged downstream from the NO_x generation step.

24. (New) The internal combustion engine according to claim 21, further comprising an NH_3 generation step arranged downstream from the NO_x generation step.

25. (New) The internal combustion engine according to claim 19, wherein the reducing agent-generating unit can be operated alternately in first and second operating modes in such a way that, during the first operating mode, an NO_x -containing gas can be produced and, during the second operating mode, an H_2 -containing and NH_3 -containing reducing gas can be produced.

26. (New) The internal combustion engine according to claim 22, wherein a reducing agent-generating unit can be operated alternately in first and second operating modes in such a way that, in the first operating mode, an NO_x -containing gas can be produced and, in the second operating mode, an H_2 -containing and NH_3 -containing reducing gas can be produced.

27. (New) The internal combustion engine according to claim 23, wherein a reducing agent-generating unit can be operated alternately in first and second operating modes in such a way that, in the first operating mode, an NO_x-containing gas can be produced and, in the second operating mode, an H₂-containing and NH₃-containing reducing gas can be produced.

28. (New) The internal combustion engine according to claim 24, wherein a reducing agent-generating unit can be operated alternately in first and second operating modes in such a way that in the first operating mode of the NO_x generation step, an NO_x-containing gas can be produced and, in the second operating mode, an H₂-containing and NH₃-containing reducing gas can be produced.

29. (New) The internal combustion engine according to claim 25, further comprising an NO_x intermediate storage unit arranged downstream from the NO_x generation step.

30. (New) The internal combustion engine according to claim 26, further comprising an NO_x intermediate storage unit arranged downstream from the NO_x generation step.

31. (New) The internal combustion engine according to claim 27, further comprising an NO_x intermediate storage unit arranged downstream from the NO_x generation step.

32. (New) The internal combustion engine according to claim 28, further comprising an NO_x intermediate storage unit arranged downstream from the NO_x generation step.

33. (New) The internal combustion engine according to claim 29, wherein the NO_x intermediate storage unit is designed for reaction of stored NO_x with H₂ to NH₃.

34. (New) The internal combustion engine according to claim 30, wherein the NO_x intermediate storage unit is designed for reaction of stored NO_x with H₂ to NH₃.

35. (New) The internal combustion engine according to claim 31, wherein the NO_x intermediate storage unit is designed for reaction of stored NO_x with H₂ to NH₃.

36. (New) The internal combustion engine according to claim 32, wherein the NO_x intermediate storage unit is designed for reaction of stored NO_x with H₂ to NH₃.

37. (New) The internal combustion engine according to claim 21, wherein the H₂ generation step is designed for reaction of supplied NO_x into NH₃.

38. (New) The internal combustion engine according to claim 24, wherein the H₂ generation step is designed for reaction of supplied NO_x into NH₃.

39. (New) The internal combustion engine according to claim 28, wherein the H₂ generation step is designed for reaction of supplied NO_x into NH₃.

40. (New) The internal combustion engine according claim 32, wherein the H₂ generation step is designed for reaction of supplied NO_x into NH₃.

41. (New) The internal combustion engine according claim 36, wherein the H₂ generation step is designed for reaction of supplied NO_x into NH₃.

42. (New) The internal combustion engine according to claim 19, wherein the engine is a Diesel engine.

43. (New) A process for operation of an internal combustion engine having a reducing agent-generating unit and an exhaust gas line in which an NO_x reduction catalytic converter is arranged, whereby a reducing gas produced by the reducing agent-generating unit is added upstream of the NO_x reducing

catalytic converter to the exhaust gas, wherein generation of the reducing gas comprises:

generating an NO_x-containing gas from an NO_x generation stage allocated to the reducing agent-generating unit from at least one of air and exhaust gas supplied to the NO_x generation stage; and

intermediately storing NO_x when conducting the NO_x-containing gas produced through an NO_x intermediate storage unit which is arranged downstream from the NO_x generation stage and allocated to the reducing agent-generating unit; or

generating an H₂-containing gas by an H₂ generation stage allocated to the reducing agent-generating unit and arranged upstream from an NO_x intermediate storage unit from fuel and air or exhaust gas supplied to the H₂ generation stage; and

reacting NO_x stored in the NO_x intermediate storage unit with the gas produced into NH₃ so that a reducing gas containing H₂ and NH₃ is produced.

44. (New) The process according to claim 43, wherein reaction of NO_x into NH₃ takes place in the catalytic NH₃ generation stage, which is allocated to the reducing agent generation unit and arranged downstream from the NO_x intermediate storage unit.

45. (New) The process according to claim 43, wherein intermediate storage of NO_x and reaction of NO_x into NH_3 is performed with a catalytic NO_x intermediate storage unit.

46. (New) The process according to claim 43, wherein the NO_x reducing catalytic converter is divided into a denox catalytic converter stage for reaction of NO_x with H_2 and an SCR catalytic converter stage for reaction of NO_x with NH_3 , and wherein the reducing gas is supplied to the exhaust gas as a function of its composition at an input side to the SCR catalytic converter stage or on an input side to the denox catalytic converter stage.

47. (New) The process according to claim 44, wherein the NO_x reducing catalytic converter is divided into a denox catalytic converter stage for reaction of NO_x with H_2 and an SCR catalytic converter stage for reaction of NO_x with NH_3 , and wherein the reducing gas is supplied to the exhaust gas as a function of its composition at an input side to the SCR catalytic converter stage or on an input side to the denox catalytic converter stage.

48. (New) The process according to claim 45, wherein the NO_x reducing catalytic converter is divided into a denox catalytic converter stage for reaction of NO_x with H_2 and an SCR catalytic converter stage for reaction of NO_x with NH_3 , and wherein the reducing gas is supplied to the exhaust gas as a function of its

composition at an input side to the SCR catalytic converter stage or on an input side to the denox catalytic converter stage.

49. (New) A process for operation of an internal combustion engine having a reducing agent-generating unit and an exhaust gas line in which an NO_x reduction catalytic converter is arranged, whereby a reducing gas produced by the reducing agent-generating unit is added upstream from the NO_x reducing catalytic converter to the exhaust gas, wherein generation of the reducing gas comprises:

generating an NO_x-containing gas from an NO_x generation stage allocated to the reducing agent-generating unit from at least one of air and exhaust gas supplied to the NO_x generation stage; and

generating an H₂-containing gas and an NH₃-containing reducing gas from an H₂ generation stage allocated to the reducing agent-generating unit and arranged downstream from the NO_x generation stage based on fuel fed to the H₂ generation stage, NO_x-containing gas produced, fuel supplied, and at least one of air and exhaust gas.

50. (New) The process according to claim 49, wherein the NO_x reducing catalytic converter is divided into a denox catalytic converter stage for reaction of NO_x with H₂ and an SCR catalytic converter stage for reaction of NO_x with NH₃, and wherein the reducing gas is supplied to the exhaust gas as a function of its

composition at an input side to the SCR catalytic converter stage or on an input side to the denox catalytic converter stage.